

5 We Claim:

1. Expanding clamping chuck having a base body (2), a thin-walled expansion sleeve (4) which is provided on an axial end portion of the base body (2) and forms a central receptacle (5) for a work piece that
10 is to be clamped, and a tension ring (6) that surrounds the expansion sleeve (4) forming an annular pressure chamber (7) therebetween and is connected to the base body (2) by screwing, wherein the pressure chamber (7) is filled with a hydraulic medium (11) and the expansion sleeve (4) can be elastically deformed in order to fix a work piece in the receptacle (5) by turning the tension ring (6) relative to the base body (2) in order to axially displace it, thereby reducing the volume of the
15 pressure chamber (7), characterized in that the pressure chamber (7) is filled with an elastic solid body (11) as the hydraulic medium and a sliding ring element (12) is provided between the elastic solid body (11) and a pressure face (6a) of the tension ring (6) in order to transfer a pressing force from
20 the tension ring (6) to the solid body (11).
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2. Expanding clamping device with a base body (2), a thin-walled expansion sleeve (4) which is provided on an axial end portion of the base body (2) and a tension ring (6), which engages the expansion sleeves (4) forming an annular pressure chamber (7) therebetween and is connected to the base body (2) by screwing, wherein the pressure chamber (7) is
30 filled with a hydraulic medium (11) and the
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5 expansion sleeve (4) can be elastically deformed in
order to fix a work piece in the receptacle (5) by
turning the tension ring (6) relative to the base
body (2) in order to axially displace it, thereby
reducing the volume of the pressure chamber (7),
10 characterized in that the pressure chamber (7) is
filled with an elastic solid body (11) as the
hydraulic medium and a sliding ring element (12) is
provided between the elastic solid body (11) and a
pressure face (6a) of the tension ring (6) in order
15 to transfer a pressing force from the tension ring
(6) to the solid body (11).

3. Expanding clamping device according to claim 1 or 2,
characterized in that the solid body (11) comprises
20 several adjacently disposed ring elements (11a, 11b,
11c, 11d).
4. Expanding - clamping - device - according - to - any -
preceeding claim, characterized in that the pressure
25 chamber (7) has an essentially constant inner and/or
outer diameter.